CBS

CBS Inc., 1800 M Street, N.W.
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(202) 457-4321

Re: MM Docket No. 87-268

Dear Ms. Searcy: January 23, 1988

Enclosed are an original and nine copies of the Reply Comments of CBS Inc. in response to the Commission's September 1, 1988 Tentative Decision and Further Notice of Inquiry in the above proceeding, in which the Commission is considering issues related to advanced television systems and their impact on the existing broadcast service .

Please direct any questions to the undersigned.

Yours truly,

Mark W. Johnson
Washington Counsel

Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems and Their Impact on the Existing Broadcast Service	)	
	)	
Review of Technical and Operational Requirements: Part 73-E, Television Broadcast Stations	)	MM Docket No. 87-268
	)	
Reevaluation of the UHF Television Channel and Distance Separation Requirements of Part 73 of the Commission's Rules	)	

REPLY COMMENTS OF CBS INC.

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January 23, 1989

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SUMMARY OF REPLY COMMENTS OF CBS INC.

There was broad agreement among commentors with the Commission's findings that existing broadcasters should be allowed to implement ATV terrestrial broadcasting, that NTSC service should continue in the meantime, and that the Commission should take an active role in the setting of an ATV transmission standard. Continuing work by the Advisory Committee, the ATTC and FCC staff will provide the basis to make final spectrum and standards decisions.

The Commission should adopt a one-step approach to ATV terrestrial broadcast inplementation, because a multi-step approach would be too costly and it could place broadcasters at a technological and marketplace disadvantage vis-a-vis nonbroadcast media.

Spectrum options for primary signal and auxiliary broadcast ATV tranmissions -- including 1-13 GHz -- should be preserved until ATV spectrum needs are better known and until sufficient testing has been completed.

While issues involving HDTV production standards development are of great importance, the Commission need not consider them in the context of this proceeding. Rather, the Commission's choice of a domestic ATV

transmission standard can be determined separately and independently from resolution of production standards issues in the private sector and in appropriate international bodies.

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	)	
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Stations	)	
	)	
Reevaluation of the UHF Television	)	
Channel and Distance Separation	)	
Requirements of Part 73 of the	)	
Commission's Rules	)	

REPLY COMMENTS OF CBS INC.

CBS Inc., by its attorneys, hereby submits its reply to the comments filed on the Commission's Tentative Decision and Further Notice of Inquiry in the above-captioned docket (FCC 88-288, released September 1, 1988) ("Further Notice").

I. Introduction

In its November 30 comments in response to the Further Notice, CBS strongly supported the Commission's tentative decisions that an advanced television ("ATV") terrestrial broadcasting service would benefit the public; that

existing licensees should be allowed to implement such a service; and that NTSC service should continue during the transition to ATV broadcasting. CBS also supported the Commission's leadership in establishing the Advisory Committee on Advanced Television Service ("Advisory Committee") and its commitment to making the necessary spectrum available and to developing suitable ATV terrestrial transmission standards. CBS urged that the Commission should keep its spectrum allocations options open and should focus its efforts and those of the affected industries on intensive testing of proponent transmission systems, as well as on spectrum research and propagation testing, so that timely spectrum and standards decisions can be made on the basis of adequate information.

Comments were filed by broadcasting interests, cable interests, hardware manufacturers, ATV system proponents, satellite interests, land mobile interests, technical organizations, a government agency (FTC) and public interest groups. There were more than 40 filings, although even this large number understates the depth of interest in this proceeding, since many parties filed

jointly, including the more than 70 broadcast organizations (including CBS) that signed MST/NAB-sponsored joint comments.

It is striking that there was virtually no disagreement among the filing parties on the Commission's core findings: that action to allow existing broadcasters to implement a competitive terrestrial ATV television service would be in the public interest; that NTSC service should be continued in the interim; and that the Commission should take an active role in the setting of a terrestrial broadcast ATV standard.

Not unexpectedly, however, a wide range of opinions was propounded on many specific technical and regulatory issues, prominently including how much spectrum should be sufficient for supplementary ATV use and the relative merits of various proponent ATV transmission systems. CBS believes that the continuing work of the Advisory Committee, the testing program undertaken by the Advanced Television Test Center, and the further spectrum availability research being done by the FCC staff will provide the facts necessary to resolve these critical questions. In these Reply Comments, CBS will focus on a

few basic principles that the Commission should not lose sight of and will attempt to put one particularly divisive subject -- production standards -- into perspective.

II. The Commission Should Adopt A One-Step Approach To ATV Terrestrial Broadcasting Implementation.

Several parties urge an evolutionary approach to ATV development, beginning with a 6 MHz NTSC-compatible system, because it would be "the most economical approach" (Thomson Comments at 6), or it would allow "valuable time to be gained" toward development of a digital transmission system." TCI Comments at 7. NBC and Sarnoff are proponents of such an "introductory" 6 MHz NTSC-compatible system, which ultimately is intended to "be augmented to provide full HDTV quality by using additional bandwidth." Sarnoff Comments at 3-4.

CBS believes that a multi-step approach to ATV implementation is unwise. If an "interim" system is adopted for some indefinite period, broadcasters may find themselves at a technological and marketplace disadvantage as compared to nonbroadcast media that will undoubtedly seek to introduce ATV service of superior quality into the country in the near future.

Further, it will be more costly for broadcasters and consumers to participate in a two-step (or more) transition to a true high definition terrestrial broadcasting system. Not only will broadcasters have to make substantial investments in their plants for each incremental step on the way to a true high definition system, but consumers will have to make repeated investments in reception equipment. Also, any supplementary spectrum that may ultimately be needed to upgrade the system to a level that is competitive with nonbroadcast media may no longer be available when the final step eventually comes.

CBS urges that the Commission support a one-step approach to terrestrial broadcast ATV implementation and commit itself to adopt an ATV standard that will ensure that the technical quality of ATV terrestrial broadcasting at the outset is equivalent to that of its nonbroadcast competitors. That standard must allow for compatibility or convenient interoperability among the various means of video programming distribution, and it is especially important that a terrestrial ATV broadcast system be capable of retransmission by cable systems without

degradation.*

For now, the Commission should continue to give a high priority to system testing and further research on spectrum availability, with a view toward allocating sufficient supplementary spectrum to ensure timely implementation of such a high-quality terrestrial broadcast ATV system.

III. The Commission Should Preserve All Of Its Spectrum Allocation Options Until ATV Spectrum Needs Are Defined.

CBS stated in its November 30 comments that final decisions on spectrum allocation should not be made until propagation tests are conducted and working transmission systems are evaluated in real-world environments. CBS Comments at 10. This testing should be expedited and should carefully examine the interference characteristics of the various transmission systems. The resistance of

* NCTA acknowledges that "the adoption of a single standard for all media -- broadcast, cable, DBS and others -- may be ideal." NCTA Comments at 11. As CBS stated in its Comments on the Further Notice, the Advisory Committee should consider the costs and benefits of such a single national transmission standard.

proponent systems to interference from NTSC signals, and the degree to which these systems create interference to NTSC signals, should be given great weight, since these characteristics will be a critical factor in determining the sufficiency of the VHF/UHF bands as a source of supplemental spectrum for ATV broadcasting.

The need for system testing before allocations decisions are made has again been challenged by land mobile interests, which have reiterated their argument that the Commission should at this time "limit the amount of spectrum available for use in connection with ATV to ... the existing 6 MHz channel bandwidths available to broadcasters." LMCC Comments at 7. The Commission has already properly decided that further consideration of the land mobile sharing proposal must await the completion of research and analysis involved in ATV implementation (Further Notice, ¶96), and nothing in this round of comments by land mobile interests offers any reason to revisit this well-considered conclusion.

Similarly, DBS interests have again urged the Commission not to consider the 12 GHz band for use for terrestrial

ATV broadcasting, asserting that it is unsuitable for that use even in a simulcasting scenario, that adequate spectrum appears to be available in the VHF/UHF bands, and that any reallocation of 12 GHz spectrum would be disruptive to DBS permittees and applicants. Hughes Comments at 3-4; SBCA Comments at 3-6. Several ATV system proponents have also supported the Commission's tentative decision to limit terrestrial ATV broadcast implementation to the VHF/UHF bands, presumably because of expected difficulties of ATV signal propagation in the 1-13 GHz bands. Zenith Comments at 2; Sarnoff Comments at 7; NYIT/Glenn Comments at 10; Philips Comments at 5.

CBS understands that ATV transmission at 1-13 GHz presents complications that may well limit its suitability for primary transmissions to a licensee's full service area in a terrestrial broadcast ATV environment. However, the Commission should not prejudge the matter by precluding use of that spectrum as long as it uncertain that there will be sufficient supplementary VHF/UHF spectrum for every licensee and as long as propagation tests are pending that are designed to determine that very suitability.

In any case, it is clear that ATV broadcasting will put increasing demands on auxiliary services that are already intensively used and that 1-13 GHz spectrum holds promise for meeting this increased need. NBC Comments at 14-17. Also, NCTA points out the parallel increased need for relay service (CARS) spectrum to deliver ATV broadcast signals and satellite-delivered programming to cable headends, and notes the advantages of the 12 GHz band in providing these services. NCTA Comments at 24-25. The range of issues involving broadcast and cable support services are under investigation by the Advisory Committee's Planning Subcommittee, and planning for increased use of the 1-13 GHz bands for these purposes should not be foreclosed or discouraged.

IV. The Choice Of An ATV Transmission Standard Can And Should Be Kept Separate From The Development Of Production Standards By The Private Sector.

The issues involved in the development of ATV production standards are complex and controversial, and involve not just standards for television program production, but also creation of electronic video material (for example, for medical uses and computer applications). These issues have traditionally been considered by private sector

organizations and involve matters which the Commission need neither consider nor resolve in this proceeding, because the choice of a terrestrial broadcast transmission standard need not be affected by what production standard or standards are implemented for electronic production of video programming. The interrelationship, if any, between proponent ATV transmission systems and production standards in use or development should be well understood when systems testing has been completed, and the private sector will accommodate itself to whatever transmission standard is selected by the Commission.

This is not to say that production standards development is of secondary importance. On the contrary, CBS believes that a worldwide production standard is highly desirable, because, for example, it would facilitate international program exchange, encourage program exports and thus be of great benefit to the American production and broadcasting communities. In that regard, the 1125/60 production standard has been approved by the SMPTE and the Advanced Television Systems Committee, and has received preliminary

approval from the American National Standards Institute.*

CBS continues to believe that worldwide approval of the 1125/60 standard is achievable at the CCIR Plenary Meeting in May 1990, although it appears increasingly likely that some European administrations will remain committed to a 1250/50 production system even if CCIR approval on an 1125/60 standard is obtained.

Several parties use the Further Notice as an opportunity to take sides on issues related to production standards. NBC, for example, urges that the domestic production standards it is developing with Sarnoff (1050/59.94/2:1, 1050/59.94/1:1, and 525/59.94/1:1) "will meet the needs of American viewers and broadcasters." NBC Comments at 24. Sarnoff, Zenith and Philips express their support for the

* Capital Cities/ABC suggests that the Advisory Committee's adoption of "the proposed 1125/60 production standard as a reference point for comparing proponent system attributes" is questionable even though it "is an understandable approach to the need for objective yardsticks." Capital Cities/ABC Comments at 2. Rather than being intended "to bolster the status of 1125/60 as an ATV standard" (id. at 2), use of 1125/60 as a reference simply reflects the fact that its high technical production quality is appropriate for such use. Also, production equipment designed to employ that standard is being manufactured and is in use, so that there is a substantial quantity of existing video materials produced using the 1125/60 standard..

NBC production standard proposal. Sarnoff Comments at 28; Zenith Comments at 17; Philips Comments at 34-35. On the other hand, PBS, Sony and the 1125/60 Group express their support for the 1125/60 production standard, and PBS "urge[s] the Commission to assist the State Department in its efforts to secure adoption of this standard by the CCIR" since "international agreement on the 1125/60 standard is clearly in the public interest." PBS Comments at 33.*

As noted above, CBS believes that the Commission should not allow itself to be distracted in this proceeding by issues that it need not decide and which are being resolved in the private sector and in appropriate international forums. In sum, the "Commission should choose a transmission standard based on optimum transmission parameters rather than on existing or new production standards." CATS Comments at 4. See also, Capital Cities/ABC Comments at 3.

* In a recent contribution to the CCIR relating to consideration of a single worldwide production standard, the U.S. has endorsed the 1125/60 standard. CCIR Document 11-165, November 2, 1987. This position was determined through the public advisory committee process of the State Department CCIR National Committee. As the Chairman of that Committee stated in a December 27, 1988 memorandum to its membership (U.S. CCIR, No. NC 1181), the U.S. position on the production standard "has been based on extensive studies and duly adopted decisions of broadly based private sector organizations."

VI. CONCLUSION

The numerous comments filed in this proceeding confirm the importance of the issues being considered by the Commission to broadcasters, to cable operators, to other affected industries and to the public. This widespread and strong interest, along with the continued leadership and commitment of the Commission, will help to ensure that the upcoming work of the Advisory Committee and the testing program of the ATTC will be conducted expeditiously and well.

Respectfully submitted,

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